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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/766,267	01/19/2001	Wen Tong	11962ROUS02U	1339

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EXAMINER	
NGUYEN, HANH N	

ART UNIT	PAPER NUMBER
2662	

DATE MAILED: 12/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/766,267	TONG ET AL.	
	Examiner	Art Unit	
	Hanh Nguyen	2662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *Application filed on 08/09/04*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1, 8, 15 and 21-24 are rejected under 35 USC 102(e) as being anticipated by **Raleigh et al.** (US pat. No. 6,463,096 B1).

In claims 1, 8, 15, 16 and 21-24, **Raleigh et al.** discloses, in Fig.1, a wireless network 100 wherein a radio hub 102 (base station) allocates to each data communication device 104 (user terminal) a transmission frame associated with a particular rate (transmitting data frames to plurality of users from base station). Each transmission frame, as discribed in Fig.4A, either indicates a data device CP3 (indication of or one user terminal) allocated in entire frame C with a corresponding rate 30 Mbps (for which communication data is intended) or a plurality of data devices CPE1-CPE15 in frame A with a corresponding rate 2 Mbps (each high speed frame

include indications of at least one user terminal and data rate). The data device 104 requests radio hub 102 for accessing Internet 108 via allocated transmissin frame. Therefore, the allocated frame must transmit data between Internet 108 and data communication device 104 (frame carries data communication). Fig.3 comprises a typical data communication device 104 comprising a TDM to IP voice interface 310 that converts IP packet to TDM. Therefore, the data communication devices 104 transmit data to the hub 102 in a time division multilexed frames (wirelessly transmitting TDM superframes). See Abstract & col.3, lines 5-15 & col.5, lines 30-40 & col.6, line 35 to col.7, line 10. In Fig.2, the radio hub 102 (base station) comprises antenna 110 (an antenna) coupled to a radio link 208 (a RF coupled to the antenna) ; and a bandwidth management 210 coupled to the radio link 208 (digital processor coupled to radio frequency unit). The bandwidth management 210 (digital processor) and the radio link 208 (RF unit) operate as integrated software packages which inherently provide instructions to the radio hub 102 (digital processor executes software instructions for the base station). See col.5, lines 45-51.

In claims 2 and 9, **Raleigh et al.** discloses, in Fig.4B, that data communication devices CPE1, CPE2 are allocated 2Mbps in frame A while data device CPE3 allocated 26 Mbps in the same frame A (a plurality of data rates allocated within high peed data frame). See col.7, lines 30-40.

In claims 7 and 14, **Raleigh et al.** discloses, in Fig.4B, that frame A comprises 2 parts. The first part is allocated to data device CPE1-CPE2 at 2 Mbps (the primary data rate indicator indicates a user terminal and asociated data rate). The second part is allocated to data device CPE3 at 26 Mbps (the secondary data rate indicator indicate a user terminal). See col.7, lines 34-42.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 6 and 13 are rejected under 35 USC 103(a) as being unpatentable over **Raleigh et al.** (US pat. No. 6,463,096 B1) in view of **Love et al.** (US Pat. No.6,058,107), and further in view of **Christodoulides et al.** (US Pat. No. 6,665,361 B1).

In claims 6 and 13, **Raleigh et al.** does not disclose data frame including pilot signal and reverse link power control bit. **Love et al.** discloses, in Fig.8, frame 800 comprising a reverse power control bit 801 (frame comprising a reverse power control bit). See col.14, lines 52-56. **Christodoulides et al.** discloses, in Fig.5 & 6A a frame of 160ms comprising pilot synbols. Therefore, it would have been obvious to one ordinary skill in the art to combine **Christodoulides et al., Love et al. with Raleigh et al.** in order to allocate user terminal in at least one frame associated with a particular rate.

Claims 3-5, 10-12, and 17-20 are rejected under 35 USC 102(e) as being anticipated by **Raleigh et al.** (US pat. No. 6,463,096 B1) in view of **Rydbeck et al.** (US Pat. No.6,332,006 B1),

In claims 3, 4, 5, 10, 11 and 12, **Raleigh et al.** does not disclose different coding types, coding frames with Walsh codes; and modulation scheme within a frame. **Rydbeck et al.** discloses, in Fig.6a, a base station 610 encodes data message (high rate data), voice messages (

low rate data) by a convolution coding, Walsh coding (coding messahe by first coding type, second coding type) before transmitting to subscriber 650. The encoded messages is Pi/4-DQPSK modulated before being transmitted to the subscriber 650 (modulating scheme). See col.10, lines 5-25 & col.11, lines 35-45. Therefore, it would have been obvious to one ordinary skill in the art to combine the encoding technics of **Rydbeck et al.** into **Raleigh et al.** inorder to reduce error and protect confidential data from being detected by undesired receivers.

In claims 17 and 18, **Raleigh et al.** discloses receiving data of the frame; and determine that the data frame is intended for the user terminal in claim 15. **Raleigh et al.** does not disclose decoding a portion of superframe with Walsh codes; decoding data frame using a first coding type; decoding data in frame using a second coding type. **Rydbeck et al.** discloses, in Fig.6B, the subscriber 650 receiving encoded messages, demodulates the messages as in Fig.5B (first decoding type); decodes the messages by Walsh transform 652 (second decoding type). See col.10, lines 33-45. Therefore, it would have been obvious to one ordinary skill combine the decoding technics of **Rydbeck et al. into Raleigh et al.** in order to determine the data.

In claims 19 and 20, the limitations of these claims have been adressed in claims 1 and 15.

Response to Arguments

Applicant's arguments filed on 08/09/2004 have been fully considered but they are not persuasive.

Applicant argues on page 11 of the Remark that Raleigh fails to disclose a respective indication of at least one user terminal for which the at least one data communication is intended and a respective indication of at least one data rate of high speed data frame.

Examiner does not agree because the invention of Raleigh assigns a transmission rate, a transmission frame (at least one data communication indicating frame, data rates) to a particular data communication device to employ in the transmission frame. See col.3, lines 5-15. The particular data communication device is indicated as customer premises equipment identifier (CPE number) in a MAPPING frame assignment table of Fig.4A. See col.6, lines 58 to col.7, line 12.

Therefore, Examiner believes that Raleigh overcomes the claimed limitations and maintains the Rejection.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

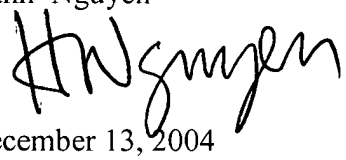
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh Nguyen whose telephone number is 571 272 3092. The

examiner can normally be reached on Monday-Friday from 8AM to 5PM. The examiner can also be reached on alternate

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou, can be reached on 571 272 3088. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hanh Nguyen



December 13, 2004